

Claims

1. A light-emitting device characterized by comprising:
a pixel comprising:

5 a light-emitting element,
 a first transistor for deciding a value of a current flowing to the
light-emitting element, and

 a second transistor for deciding a light emission or non light
emission of the light-emitting element depending on a video signal,

10 wherein the light-emitting element, the first transistor, and the second
transistor are connected in series between a first power unit and a third power unit,
and

 wherein a gate electrode of the first transistor is connected to a second
power unit.

15 2. A light-emitting device characterized by comprising:
 a pixel comprising:
 a light-emitting element,
 a first transistor for deciding a value of a current flowing to the
20 light-emitting element,
 a second transistor for deciding a light emission or non light
emission of the light-emitting element depending on a video signal, and
 a third transistor for controlling an input of the video signal,
 wherein the light-emitting element, the first transistor, and the
25 second transistor are connected in series between a first power unit and a third
power unit, and
 wherein a gate electrode of the first transistor is connected to a
second power unit.

30 3. A light-emitting device characterized by comprising:

a pixel comprising:

- a light-emitting element,
- a first transistor for deciding a value of a current flowing to the light-emitting element,
- 5 a second transistor for deciding a light emission or non light emission of the light-emitting element depending on a video signal,
- a third transistor for controlling an input of the video signal, and
- a fourth transistor for forcing the light-emitting element into a non-emission state irrelevant from the video signal,

10 wherein the light-emitting element, the first transistor, and the second transistor are connected in series between a first power unit and a third power unit, and

wherein a gate electrode of the first transistor is connected to a second power unit.

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4. The light-emitting device according to any one of claims 1 to 3, characterized in that the first transistor and the second transistor are identical in conductivity.

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5. The light-emitting device according to any one of claims 1 to 3, characterized in that the first transistor is of a depletion type.

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6. The light-emitting device according to any one of claims 1 to 3, characterized in that the first transistor has a channel length longer than a channel width, and the second transistor has a channel length equal to or shorter than a channel width.

7. The light-emitting device according to claim 6, characterized in that a ratio of the channel length to the channel width of the first transistor is 5 or more.

8. An element substrate characterized by comprising:
 - a pixel comprising:
 - a pixel electrode;
 - a first transistor for deciding a value of a current flowing to the 5 pixel electrode, and
 - a second transistor for deciding a supply or non-supply of a current to the pixel electrode depending on a video signal,
 - wherein the first transistor and the second transistor are connected in series between a first power unit and the pixel electrode, and
- 10 wherein a gate electrode of the first transistor is connected to a second power unit.

9. The element substrate according to claim 8, characterized in that each of the first transistor and the second transistor has a P-type conductivity, and a 15 threshold value of the first transistor is higher than that of the second transistor.

10. The element substrate according to claim 8, characterized in that each of the first transistor and the second transistor has an N-type conductivity, and a threshold value of the first transistor is lower than that of the second transistor.

20 11. The element substrate according to any one of claims 8 to 10, characterized in that the first transistor is of a depletion type.

12. The element substrate according to any one of claims 8 to 10, 25 characterized in that the first transistor has a channel length longer than a channel width, and the second transistor has a channel length equal to or shorter than a channel width.

13. The element substrate according to claim 12, characterized in that a 30 ratio of the channel length to the channel width of the first transistor is 5 or more.